Small Business Innovation Research

Economical Hybrid Anti-Icing System



Cox & Company, Inc.
New York, NY

INNOVATION

An Ice Protection System suitable for roughnesssensitive airfoils that would typically be protected by anti-icing systems requiring greater energy

ACCOMPLISHMENTS

- Developed new methodology for lifting surface ice protection that combines electro-thermal anti-icing with Electro-Mechanical Expulsion Deicing System (EMEDS) to maintain leading edges clear of ice
- Received FAA certification on May 23, 2001
- Constitutes the first "new" certified ice protection system in more than forty years

COMMERCIALIZATION

- In production for horizontal stabilizer on Raytheon Aircraft's new Premier I business jet
- More than 300 aircraft are on order and revenues are expected to be more than \$10M over the next several years
- Further applications are being investigated and use on other airplanes is expected



Hybrid Anti-Icing System Tested at NASA Icing Research Tunnel by Cox and Raytheon Engineers

GOVERNMENT/SCIENCE APPLICATIONS

- Helps satisfy the NASA goal of increasing aviation safety through the development of advanced ice protection system
- Useful on military aircraft of all sizes including advanced flight vehicles